EWELLIX

A Schaeffler Company

Solutions for material handling

The heritage of innovation

Ewellix is a global innovator and manufacturer of linear motion and actuation solutions. Our state-of-the-art linear solutions are designed to increase machine performance, maximise uptime, reduce maintenance, improve safety and save energy. We engineer solutions for assembly automation, medical equipment, mobile machinery, distribution and a wide range of other industrial applications.

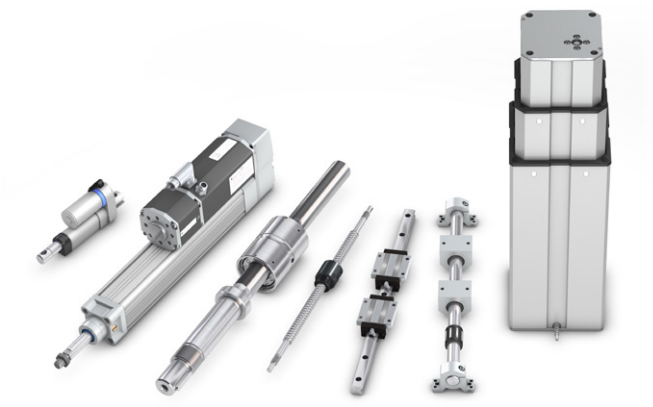
Technology leadership

We earned our reputation through decades of engineering excellence. Our journey began over 50 years ago as part of the SKF Group, a leading global technology provider. Our history provided us with the expertise to continuously develop new technologies and use them to create cutting edge products that offer our customers a competitive advantage.

In 2019, we became independent and changed our name to Ewellix. We are proud of our heritage. This gives us a unique foundation on which to build an agile business with engineering excellence and innovation as our core strengths.

Global presence and local support

With our global presence, we are uniquely positioned to deliver standard components and custom-engineered solutions, with full technical and applications support around the world. Our skilled engineers provide total life-cycle support, helping to optimise the design, operation and maintenance of equipment thus improving productivity and reliability while reducing costs. At Ewellix, we don't just provide products; we engineer integrated solutions that help customers realise their ambitions.



Schaeffler Group – We pioneer motion

Ewellix is since 2023 owned by the Schaeffler Group.

As a leading global supplier to the automotive and industrial sectors, the Schaeffler Group has been driving forward groundbreaking inventions and developments in the fields of motion and mobility for over 75 years.

With innovative technologies, products, and services for electric mobility, CO_2-efficient drives, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion and mobility more efficient, intelligent, and sustainable.

Schaeffler manufactures high-precision components and systems for powertrain and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications.

The mobile solution of the future

Automated Guided Vehicle (AGV) systems are fully autonomous robots that move and transport items in production, warehouse, and distribution centres without manual intervention or permanent conveying systems.

Material handling equipment requires smooth and fast motion to move material around an operation efficiently. Most forklift trucks and Autonomous Guided Vehicles (AGV) or Autonomous Mobile Robots (AMR) operate with electric drives. Energy efficiency is a crucial feature in material handling to increase runtime and productivity, whilst systems are still prevalent in high power lifting functions but have poor energy efficiency. Ewellix electromechanical actuators provide energy-efficient alternatives for these functions in material handling.

From standard range to customised solutions

Ewellix provides a range of actuators, guides systems and controllers to meet all your needs. From high-performing, robust products that have minimal play to straightforward configurations needed for less demanding jobs.

Application competence

Building on our more than 30 years' experience and knowledge in handling applications, Ewellix can support you with technical advice, system setup, and customised designs throughout

Digital offer

Mobile Machinery

Battery Electric Vehicles

Actuator select

Automated Guided Vehicles

Automatically controlled or autonomous vehicles that transport a wide range of products from crates to pallets are becoming increasingly popular in today's fast-moving environment. Electromechanical actuators lift few tons in a small space for unit load AGV, move the arm of the tow tugs top module or lift the low lift truck Autonomous Mobile Robots (AMR).

Our plug-and-play LIFTKIT generates a vertical axis to extend the performance of the AMR and 6 axis Robot for goods-to-person operations. The electromechanical actuators and lifting columns from Ewellix provide efficiency, ease of operation and positioning with feedback.

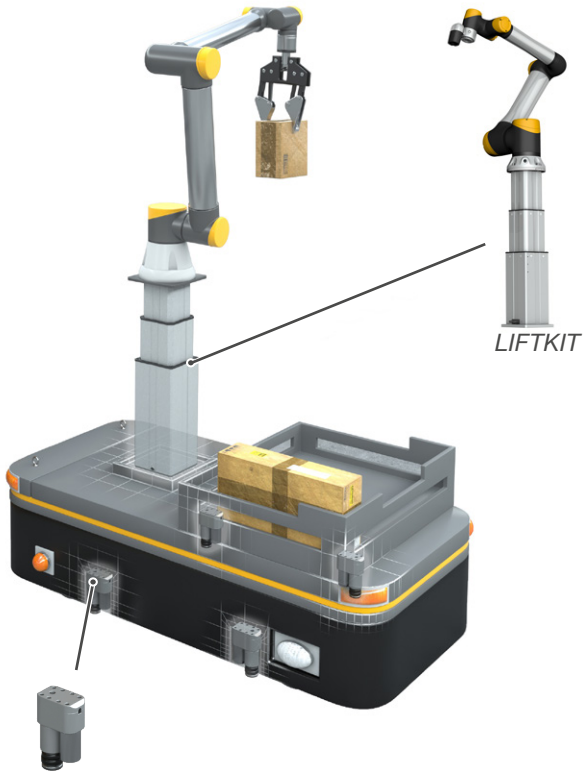
Ewellix solutions

Features

- Oil-free operation with the same performance as hydraulic system
- High responsiveness, speed and positioning
- Integrated controller with BUS communication

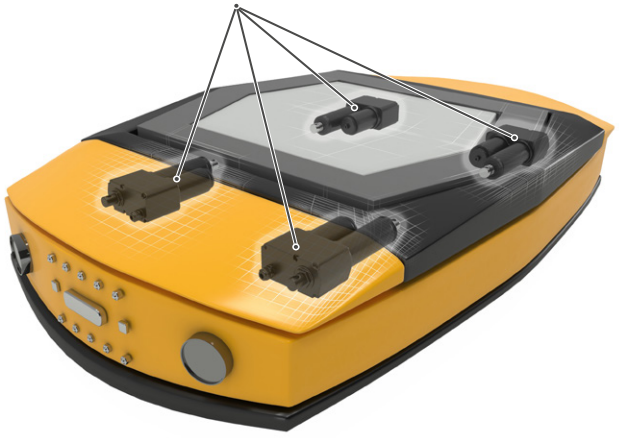
Benefits

- Oil-free
- Energy efficient
- Compactness
- Position feedback
- On-board diagnostic
- Stability
- Vertical axis
- Parallel motion



CAFL

CAHB-2x series



Linears actuators

	LIFTKIT	CAFL	CAHB-2x
Rated push load	up to 1 500 N	up to 1 700 N	up to 10 000 N
Speed	up to 80 mm	up to 12 mm	up to 57 mm/s
Stroke	up to 1 400 mm	up to 27 to 50mm	up to 700 mm
Retracted length	Stroke/2 + 275 mm	Stroke + 85 mm	Stroke + 160 mm
Static load	3 000 Nm	7 500 N	20 000 N

Pallet truck

An electric pallet truck is a powered industrial truck used to lift and move materials over short distances for indoor and outdoor applications. The trend today is to use electrical solutions for lifting the fork. Our electromechanical actuators provide an energy efficient and oil-free solution for smooth movement with energy recuperation and lower Total Cost of Ownership.

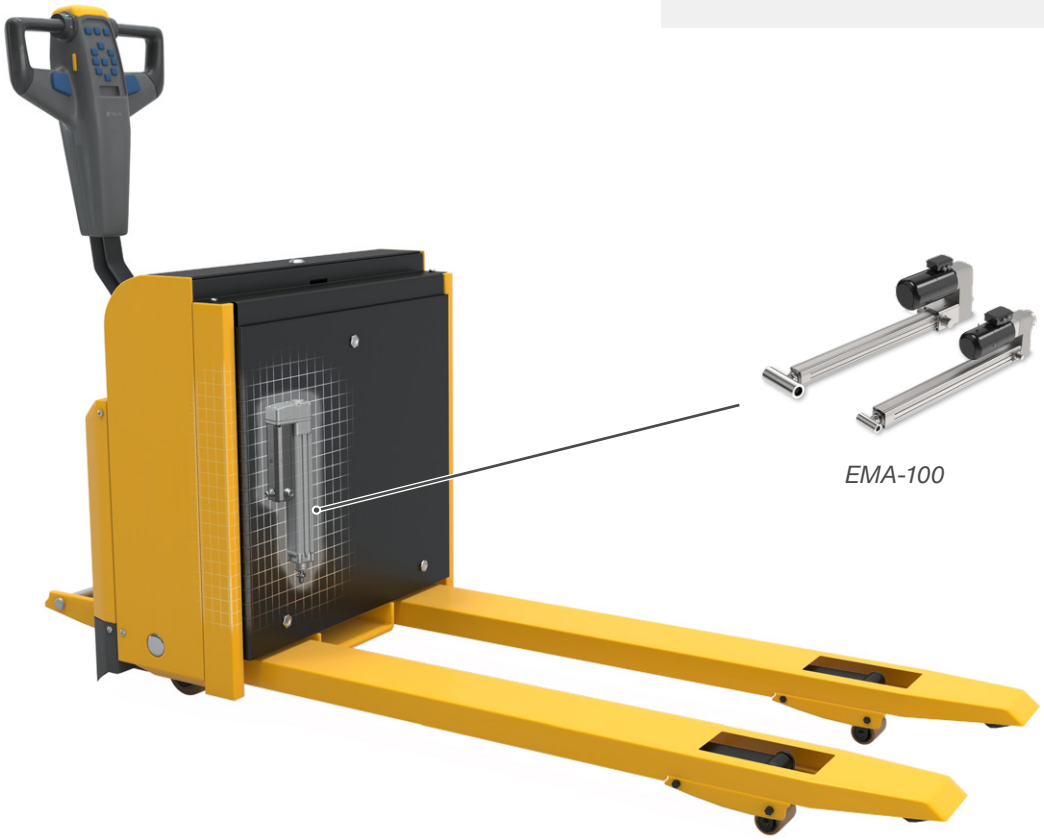
Ewellix solutions

Features

- Oil-free operation with the same performance as hydraulic system
- High responsiveness, speed and positioning
- Short built-in dimensions
- Integrated sensor

Benefits

- Oil-free
- Energy efficient
- Compactness
- Position feedback
- Telematics ready



EMA-100

High performance actuator

	EMA-100
Rated push load	up to 82 000 N
Speed	up to 890 mm/s
Stroke	up to 2 000 mm
Retracted length	Stroke + 326 mm
Static load	82 000 N

Forklifts

An electric forklift is a powered industrial truck used to lift and move materials over short distances for indoor and outdoor applications. It has become increasingly common to use electrical solutions for lifting, tilting and adjusting the fork and for steering. Our electromechanical actuators provide an energy efficient and oil-free solution for smooth movement with energy recuperation and lower Total Cost of Ownership.

Ewellix solutions

Features

- Oil-free operation with the same performance as hydraulic system
- High responsiveness, speed and positioning
- Integrated safety feature for lifting
- Integrated sensor

Benefits

- Oil-free
- Energy efficient
- Smooth movement
- Lower TCO
- Energy recuperation

CAHB-2x series

EMA-100

EMA-100

Linears actuators

	CAHB-2x
Rated push load	up to 10 000 N
Speed	up to 57 mm/s
Stroke	up to 700 mm
Retracted length	Stroke + 160/235 mm
Static load	20 000 N

High performance actuator

	EMA-100
Rated push load	up to 82 000 N
Speed	up to 890 mm/s
Stroke	up to 2 000 mm
Retracted length	Stroke + 326 mm
Static load	82 000 N

Precision ball screws

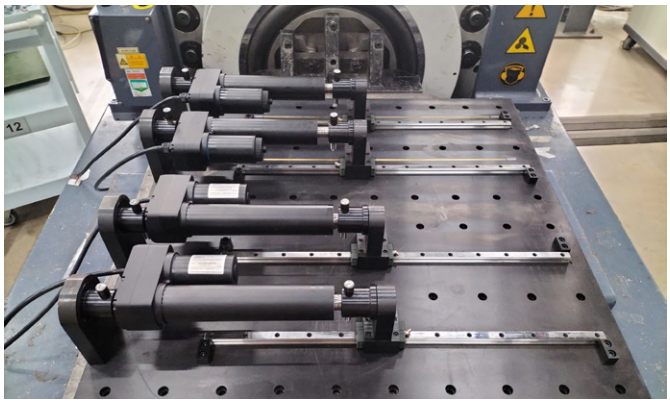
	SX series
Shaft diameter	20 to 63 mm
Lead	5 to 10 mm
Max axial load	10 to 100 kN
Max lengh	up to 5 700 mm
Max speed	up to 330 mm/s

Tested for your environment

Ewellix's expertise in mechanics and electronics, and specific application requirements contribute to the development of electromechanical actuators to meet the requirements of mobile machinery manufacturers. We verify our products by a comprehensive test plan that covers all regulatory and environmental requirements.

Mechanical tests

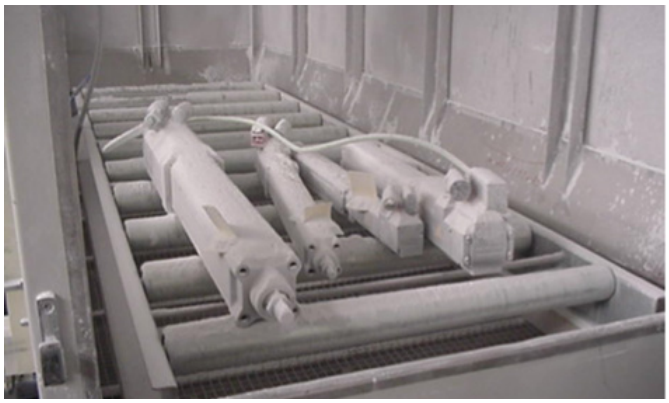
The actuators are used on mobile equipment, and we put them on different test benches to validate how they withstand vibration and shock on all three-axes.



Vibration test

Climatic tests

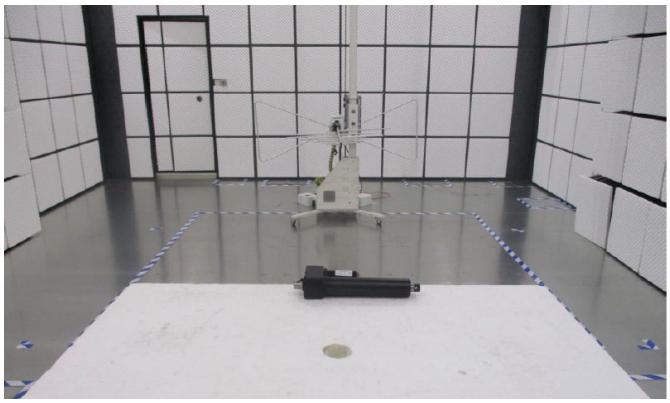
The actuators are tested in a climatic test chamber that reproduces extremely low -40°C and high temperatures +85°C, and any possible variations, including humidity and corrosive atmospheres. Doing this ensures that all the functions and performance of the actuators are working as expected.



Low temperature test

Electrical tests

The actuators are tested with different test equipment that reproduces the electrical environment recommended by international standards, such as power supply, immunity to the electrostatic discharges, and electromagnetic compatibility during extreme cases, even during the transient mode typical on a vehicle.



EMC test air immunity or radiation test

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PUB NUM EL-03014/2-EN-November 2024